

REMARKS

35 U.S.C. § 112 Rejections

The Examiner has rejected claims 1-36 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states that claim 1 recites the limitation “merging said sub-segments when the distance between centroids of the sub-segments are less than a predetermined threshold.” The Examiner asks how this distance is computed and whether it is computed between the bounded regions of each of the sub-segments or from the actual segments that are surrounded by the bounded region. The Examiner further states that a similar limitation occurs in claims 10, 19, and 28 and asks for clarification.

Applicant respectfully submits that a widely accepted definition of a centroid is the center of an area, region, or polygon. In the case of irregularly shaped polygons, the centroid is derived mathematically and is weighted to approximate a sort of “center of gravity.” Claims 1, 10, 19, and 28 use this term because character sub-segments can be either regular or irregular shapes. Claims 1, 10, 19, and 28 also define that each sub-segment has “a boundary enclosing at least one [character] stroke.” This boundary determines the area of the sub-segment and hence the centroid for the sub-segment can be found.

The Examiner asks whether the distance is computed “from the actual segments that are surrounded by the bounded region.” Applicant respectfully

submits that there is no reference in the specification to "actual segments." The invention as defined by the independent claims requires sub-segments to be generated. Each sub-segment represents at least one character stroke. Each sub-segment has a boundary enclosing via at least one character stroke of the sub-segment. Each sub-segment has a centroid which is easily determined because the area of the sub-segment is known based on the boundary of the sub-segment. When the distance between centroids of sub-segments is less than a predetermined threshold, these sub-segments are merged. Segments representing possible characters from the sub-segments are then generated.

Applicant submits that the claims do not need to be limited to a specific way of calculating the distance between centroids of sub-segments. In fact, a person skilled in the art with a basic computer graphics background would be aware of many techniques to compute this distance. For example, as found in the present specification, Figure 3B shows centroids 26 and 28. In raster graphics, centroids 26 and 28 are identified by pixel coordinates. Therefore, the distance between the centroids 26 and 28 can be determined by scalar calculation. Alternatively, in vector graphics, the distance can be determined by mathematical equations because centroids 26 and 28 are described by mathematical formulas.

Therefore, claims 1, 10, 19, and 28 are definite and distinctly claim the subject matter which applicant regards as the invention.

Claims 2-9, 11-18, 20-27, and 29-36 depend on either claim 1, 10, 19, or 28 and should be allowable for the same reasons stated above.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1-36 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner objected to claim 29 for lack of antecedent basis.

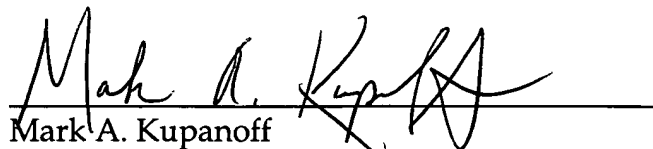
Claim 29 has been appropriately amended.

Applicant respectfully submits that the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Mark A. Kupanoff at (408) 720-8300.

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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